

ABSTRACT

An amplifier circuit (1) includes an amplifying transistor (QØ) and an impedance-controllable dc bias circuit (2) for biasing the amplifier transistor (QØ) to obtain a
5 conduction angle of at least about 180°. The dc bias circuit (2) includes a self-bias
boosting circuit having separate current sources (Ibias, Iclass) for independently
controlling the output impedance of the dc bias circuit (2) and the quiescent current of the
amplifier transistor (QØ), and has a Wilson current-mirror (Q4, Q5, Q6, Q7) integrated
with a cascode current-mirror circuit (Q2, Q3, Q8) to form an extended Wilson current-
10 mirror circuit (Q2-Q8) having an output coupled to a control terminal of the amplifying
transistor (QØ) by a resistor (R1), and a capacitor (C2) coupled from the extended Wilson
current-mirror circuit (Q2-Q8) to a common terminal (Gnd).